

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: IL-Won Shin

GENERAL INFORMATION:

Name:	The Four Rivers BioEnergy Company, Inc.
Address:	1637 Shar-Cal Road, P.O. Box 1056 Calvert City, KY 42029
Date application received:	8/1/2007
SIC Code/SIC description:	2869, Industrial Organic Chemicals, NEC
Source ID:	21-157-00066
Agency Interest:	97253
Activity:	APE20070001
Permit:	F-07-047

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Potential (tpy)
PM/PM ₁₀	138.57 / 99.91
SO ₂	58.39
NO _x	58.63
CO	89.18
VOC	89.06
Source wide HAPs	23.85

Note: Source not constructed. No actual emissions prior to application submittal.

SOURCE DESCRIPTION:

The Four Rivers BioEnergy Company, Inc. (Four Rivers) is proposing to construct a new biofuels facility in Calvert City, Marshall County, Kentucky. The biofuels facility will be comprised of a biodiesel plant and an ethanol manufacturing plant. The facility will manufacture 115.5 million gallons of denatured, fuel grade ethanol per year and 38.5 million gallons of fuel grade biodiesel per year. As part of the ethanol process, the facility will produce animal feed as a co-product. The animal feed, known as distiller's grain and solubles (DGS) can be sold as is (wet cake) or dried (DDGS). The project will first construct the biodiesel plant and then will construct the ethanol manufacturing plant.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

In order to ensure that the facility remains exempt from the regulations for major sources of criteria and HAP emissions, Four Rivers is requesting a conditional major permit. Emissions will be limited to less than 90 ton/yr VOC, 24.73 ton/yr of total HAP, and 9 ton/yr of an individual HAP. Four Rivers has also requested source-wide limits for PM, PM₁₀, SO₂, NO_x, and CO. Monthly and rolling 12-month total emissions for PM, SO₂, NO_x, CO, and VOC will be calculated. Daily and rolling 365-day total emissions for PM₁₀ and total HAP will be calculated since these emissions are close to the major source thresholds. Emission calculations and supporting documentation will be retained at the facility.

OPERATIONAL FLEXIBILITY:

The power boiler at the biodiesel plant will only operate when the ethanol plant boilers are not operating.